



Agricultural Marketing Service
U.S. DEPARTMENT OF AGRICULTURE

Grain Truck and Ocean Rate Advisory



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Grain Truck and Ocean Rate Advisory

PREFACE

The key roles of trucking and ocean vessels in agricultural transportation—especially for shipping grain—necessitate timely collection and dissemination of standardized intelligence on these modes. The Grain Truck and Ocean Rate Advisory presents an overview of the transportation market for grain trucks, as well as ocean freight rates, for shipping bulk grain. Benefiting decision makers, this information affords insights into investments, policy, and market phenomenon.

This report includes analysis of the following market factors:

- **Rates per mile.** National and regional truck rates are based on a gross vehicle weight limit of 80,000 pounds. The rates per mile per truckload are reported for 25-, 100-, and 200- miles radiuses.
- **Truck availability.** Reported by grain elevators, truck availability describes the ease of hiring truck capacity in the current quarter, compared to the same quarter last year. This metric is on a scale of 1 to 5, with degree of difficulty increasing as the number rises.
- **Current and future truck use.** Current and future national and regional truck use are ranked on a scale of 1 to 5, with 1 being the lowest and 5 being the highest. The truck-use indices compare both current and future use in the current quarter to the same quarter last year.
- **U.S. diesel fuel rates.** To capture this significant component of truck rates, this section presents the quarterly average national and regional diesel fuel prices as published by the U.S. Department of Energy, Energy Information Administration.
- **Ocean shipping rates.** Ocean shipping costs affect the landed costs and, thus, the competitiveness of shipping U.S. grains overseas. This section presents quarterly ocean freight rates (in dollars per metric ton) for shipping bulk grain from the U.S. Gulf and Pacific northwest to selected foreign markets.

The information presented in this publication is based on quarterly surveys of grain elevators conducted by North Dakota State University/Upper Great Plains Transportation Institute.

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TRUCK ADVISORY

The truck advisory presents an overview of the transportation market for grain trucks, including national and regional truck rates, truck availability, truck usage, and diesel fuel prices.

Table 1. U.S. grain truck market, 4th quarter 2021

	25 miles	100 miles	200 miles	Truck availability	Truck use	Future truck use
	¹ Rate per mile, per truckload			Quarterly index*		
				1 = Very easy to 5 = Very difficult	1 = Much lower to 5 = Much higher	
National average²	5.70	3.69	3.54	3.19	2.93	2.73
North Central	5.54	3.37	3.70	3.78	3.33	3.00
East	NA	NA	NA	NA	NA	NA
South Central	4.84	NA	NA	3.10	3.02	2.67
West	6.85	4.89	4.69	2.67	2.33	1.67
Rocky Mountain	4.61	3.49	1.98	2.67	2.33	3.00

¹ Rates are based on trucks with 80,000-pound (lb) gross vehicle weight limit, and are quoted in U.S. dollars.

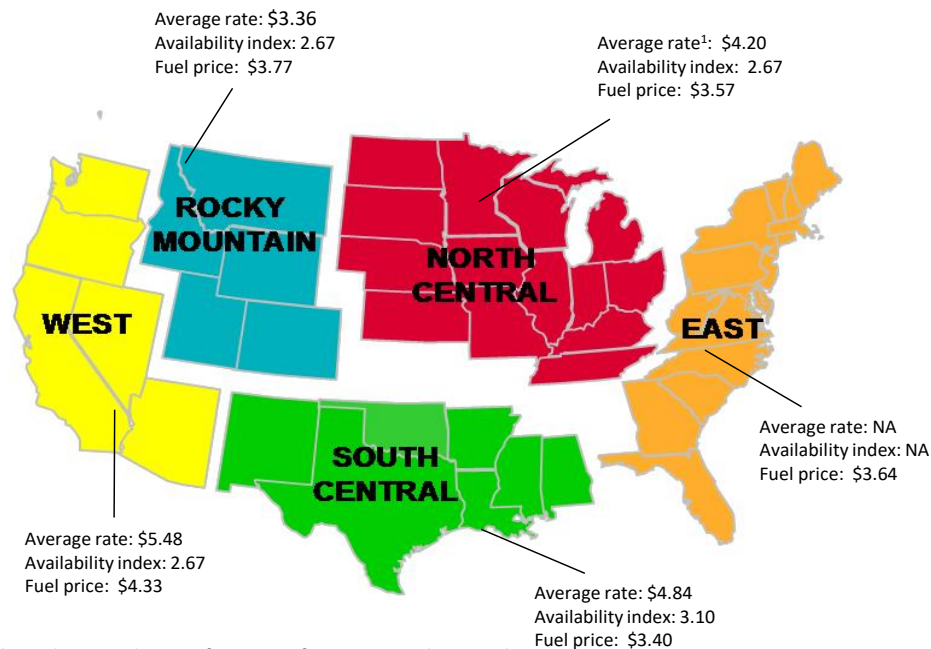
² National average is based on rates received from various States, but not every State is represented.

*Current and future truck use indices are based on comparison to the same quarter last year.

Note: NA = not available because of low or no response rate.

Source: USDA, Agricultural Marketing Service.

Figure 1. U.S. Grain Truck Market, 4th quarter 2021



¹ Average rate per loaded mile, based on truck rates for trips of 25, 100, and 200 miles.

Note: Fuel prices are a quarterly average (unit per gallon).

Source: Fuel price data are from U.S. Department of Energy, Energy Information Administration, and availability index data are from USDA, Agricultural Marketing Service.

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TRUCK USE

Truck use indices represent current and future national and regional truck use.

Table 2. Regional truck use index*

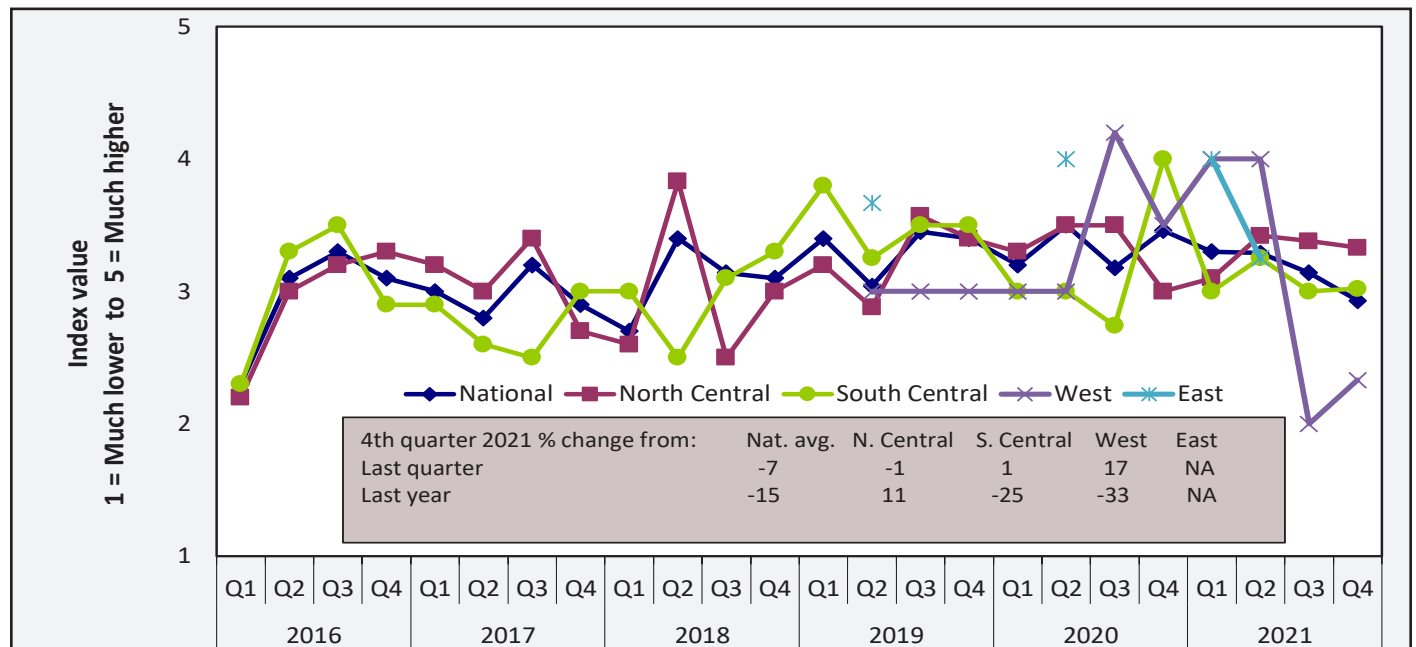
Current truck use 1 = Much lower to 5 = Much higher					Future truck use 1 = Much lower to 5 = Much higher			
2020	1st qtr.	2nd qtr.	3rd qtr.	4th qtr.	1st qtr.	2nd qtr.	3rd qtr.	4th qtr.
National	3.20	3.50	3.18	3.46	2.80	3.36	3.45	3.15
North Central	3.30	3.50	3.50	3.00	2.80	3.38	3.50	3.50
East	NA	NA	NA	NA	NA	NA	NA	NA
South Central	3.00	3.00	2.74	4.00	3.00	3.00	3.33	3.00
West	3.00	3.00	4.20	3.50	2.50	3.00	4.22	2.50
Rocky Mountain	NA	3.50	3.50	3.00	NA	3.00	3.00	3.50
2021	1st qtr.	2nd qtr.	3rd qtr.	4th qtr.	1st qtr.	2nd qtr.	3rd qtr.	4th qtr.
National	3.30	3.29	3.14	2.93	3.20	3.00	3.00	2.73
North Central	3.10	3.42	3.38	3.33	3.00	2.75	2.63	3.00
East	4.00	3.25	NA	NA	3.00	3.75	NA	NA
South Central	3.00	3.25	3.00	3.02	3.00	3.25	4.00	2.67
West	4.00	4.00	2.00	2.33	3.00	2.00	2.00	1.67
Rocky Mountain	NA	2.50	2.50	2.33	NA	3.50	4.50	3.00

*Current and future truck use indices are based on comparison to the same quarter last year.

Note: qtr. = quarter; NA = not available.

Source: USDA, Agricultural Marketing Service

Figure 2. National truck usage, 4th quarter 2021



Note: Q = quarter; Nat. = national; avg. = average; N. = north; S. = south; NA = not available.

Source: USDA, Agricultural Marketing Service.

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TRUCK AVAILABILITY

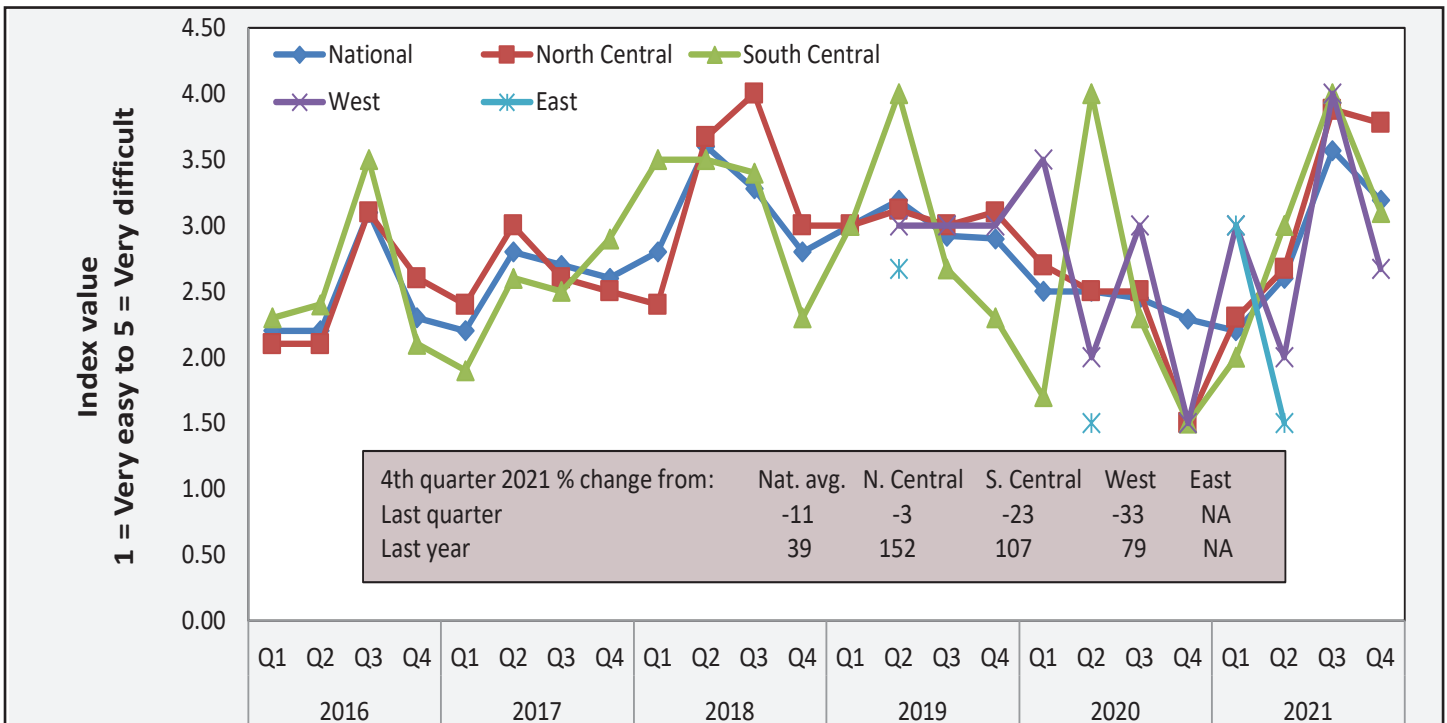
The truck availability index tracks the trends in perceived ease of hiring a truck as reported by grain elevators.

Table 3. Quarterly national truck availability index

Region	1 = Very easy 5 = Very difficult			Current quarter as % change from	
	4th qtr. 2021	Previous qtr.	Same qtr. last year	Previous qtr.	Same qtr. last year
National	3.19	3.57	2.29	-11	39
North Central	3.78	3.88	1.50	-3	152
East	NA	NA	NA	NA	NA
South Central	3.10	4.00	1.50	-23	107
West	2.67	4.00	1.50	-33	78

Note: qtr. = quarter; NA = not available.
Source: USDA, Agricultural Marketing Service.

Figure 3. National truck availability



Note: Q = quarter; Nat. = national; avg. = average; N. = north; S. = south; NA = not available.
Source: USDA, Agricultural Marketing Service.

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TRUCK RATES

The truck is assumed to carry 55,000 lbs. or 25 metric tons of grain. Rates per metric ton per mile can be calculated from rates per truckload.

Table 4. Average grain truck rates for short and long hauls, 4th quarter 2021

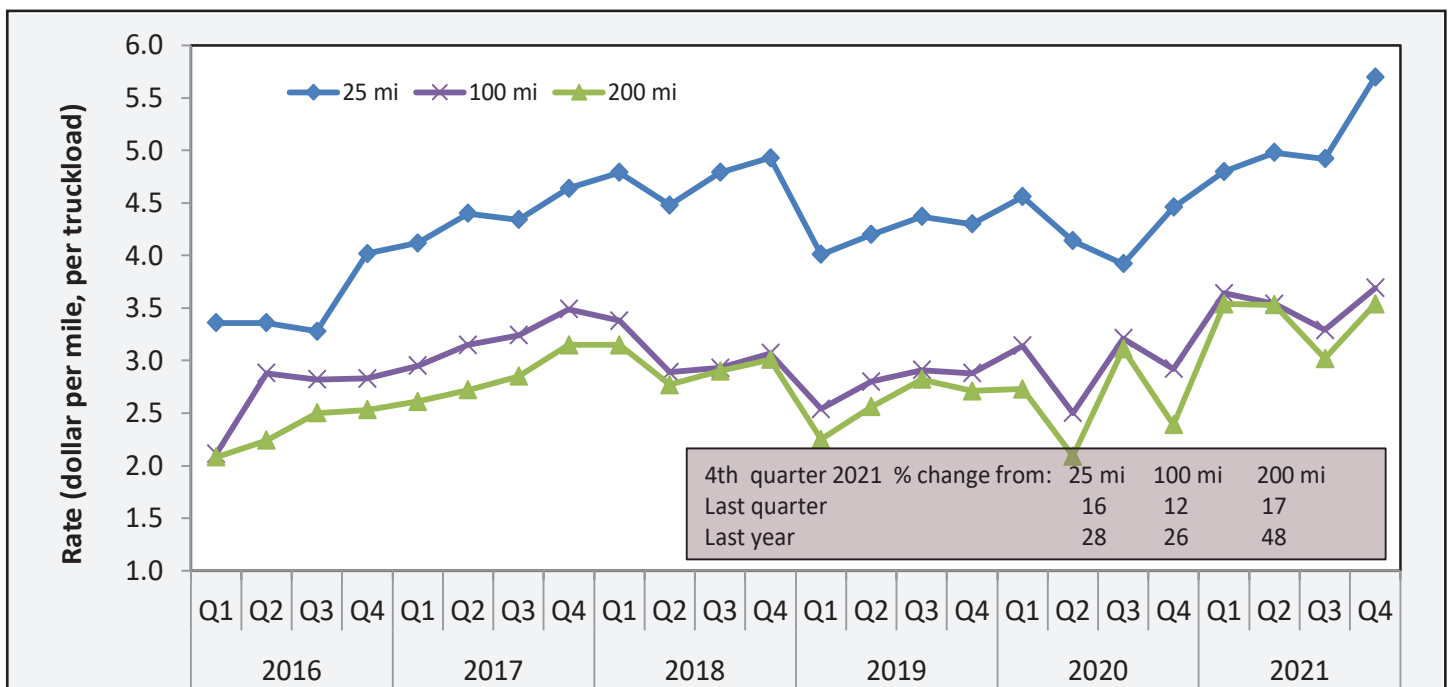
Region	(\$/mile per truckload)			% change from					
	25 miles	100 miles	200 miles	Last qtr.			Same qtr. last year		
				25 miles	100 miles	200 miles	25 miles	100 miles	200 miles
National average	5.70	3.69	3.54	15.9%	12.2%	17.2%	27.8%	26.4%	48.1%
North Central	5.54	3.37	3.70	11.5%	2.4%	22.1%	14.5%	18.7%	56.8%
East	NA	NA	NA	NA	NA	NA	NA	NA	NA
South Central	4.84	NA	NA	36.0%	NA	NA	3.6%	NA	NA
West	6.85	4.89	4.69	24.3%	NA	NA	60.8%	NA	NA
Rocky Mountain	4.61	3.49	1.98	44%	4.5%	-20.5%	23.6%	24.6%	-20.5%

Note: qtr. = quarter; NA = not available.

Rates are based on trucks with 80,000-pound (lb) gross vehicle weight limit.

Source: USDA, Agricultural Marketing Service.

Figure 4. National average truck rates by trip distance



Note: Q = quarter; mi = miles.

Source: USDA, Agricultural Marketing Service.

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U.S. DIESEL FUEL RATES

The diesel fuel price provides a proxy for trends in U.S. truck rates. Diesel fuel is a significant expense for grain movements.

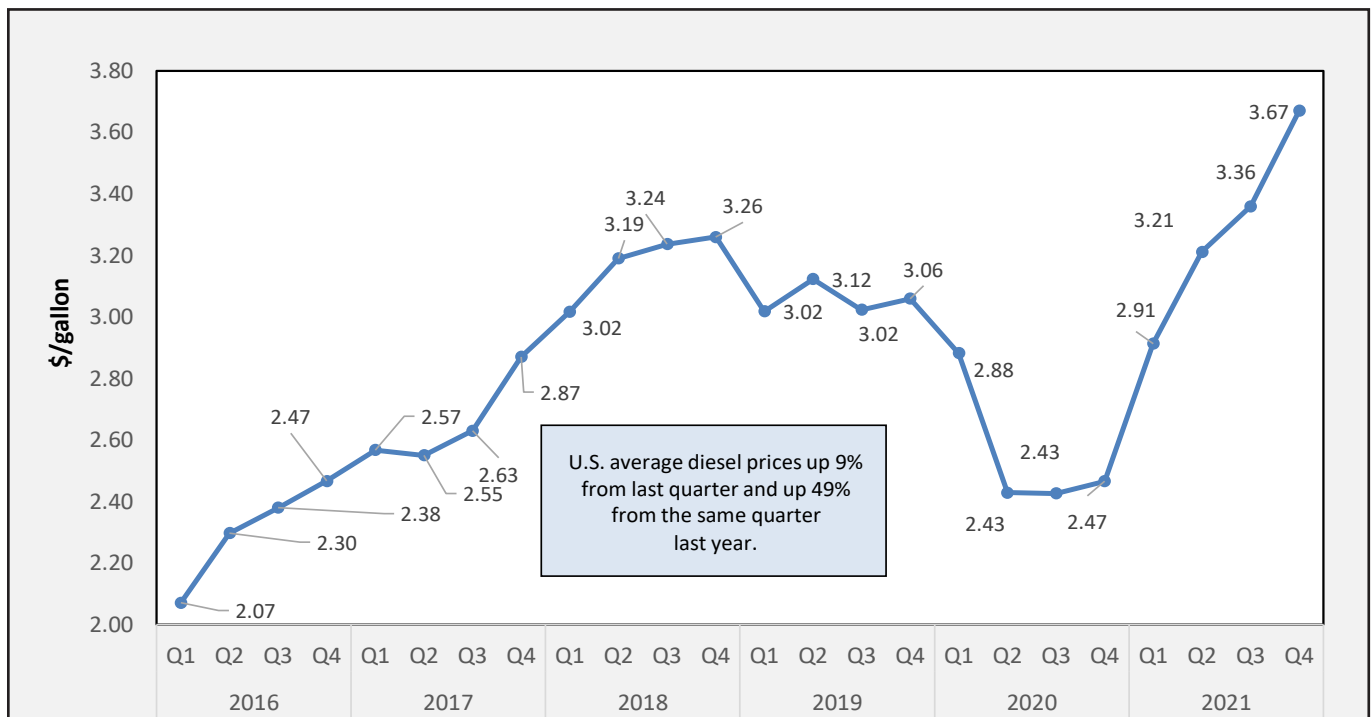
Table 5. 4th quarter 2021 average diesel fuel prices (all types - \$/gallon)

Location	Price	Change from	
		Last qtr.	Same qtr. last year
East Coast	3.64	0.32	1.12
New England	3.60	0.33	1.02
Central Atlantic	3.80	0.32	1.09
Lower Atlantic	3.55	0.32	1.17
Midwest	3.57	0.30	1.21
Gulf Coast	3.40	0.31	1.18
Rocky Mountain	3.77	0.14	1.32
West Coast	4.33	0.35	1.34
California	4.67	0.40	1.39
U.S.	3.67	0.31	1.20

Note: qtr. = quarter.

Source: U.S. Department of Energy, Energy Information Administration.

Figure 5. U.S. average on-highway diesel fuel prices



Note: Q = quarter.

Source: U.S. Department of Energy, Energy Information Administration.

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OCEAN RATES

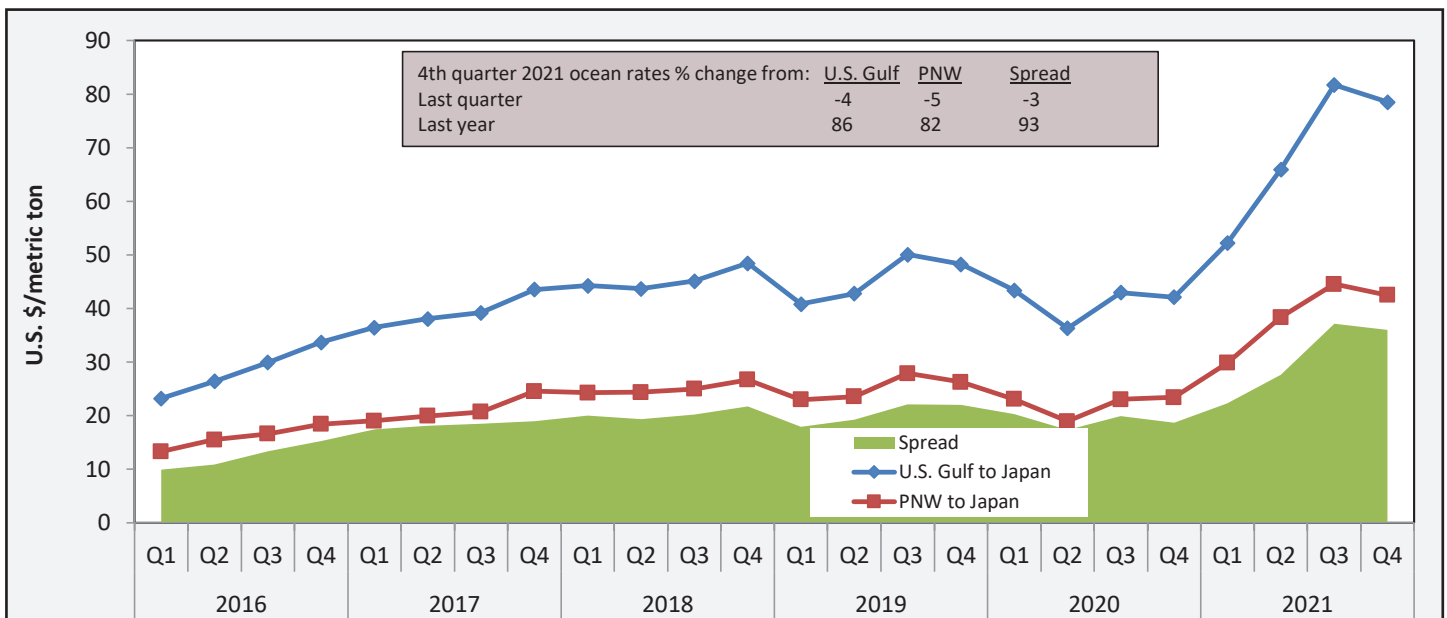
Quarterly ocean freight rates for shipping bulk grain from the U.S. Gulf and Pacific Northwest to selected foreign markets in dollars per metric ton.

Table 6. Ocean shipping rates for bulk grain (\$/metric ton)

U.S. Gulf to										
Country	1st qtr. 2020	2nd qtr. 2020	3rd qtr. 2020	4th qtr. 2020	Avg.	1st qtr. 2021	2nd qtr. 2021	3rd qtr. 2021	4th qtr. 2021	Avg.
Japan	43.38	36.33	42.99	42.11	41.20	52.19	65.94	81.71	78.50	69.59
Rotterdam	14.82	13.18	19.41	19.02	16.61	19.75	23.19	28.21	30.09	25.31
China	41.98	35.40	42.14	40.79	40.08	50.88	64.88	80.83	77.72	68.58
Mexico	13.64	12.41	14.39	14.43	13.72	19.19	23.75	27.68	25.23	23.96
Colombia: Atlantic Ports (East)	18.85	17.96	19.76	19.97	19.14	27.23	36.15	44.39	41.15	37.23
Colombia: Pacific Ports (West)	27.11	27.55	30.34	30.94	28.99	38.50	48.25	52.96	49.00	47.18
PNW to										
Country	1st qtr. 2020	2nd qtr. 2020	3rd qtr. 2020	4th qtr. 2020	Avg.	1st qtr. 2021	2nd qtr. 2021	3rd qtr. 2021	4th qtr. 2021	Avg.
Japan	23.10	18.94	23.05	23.40	22.12	29.85	38.34	44.56	42.49	38.81
China	22.28	18.20	22.37	22.65	21.38	28.60	37.60	43.98	42.01	38.05

Note: qtr. = quarter; avg. = average; PNW = Pacific Northwest.
Source: O'Neil Commodity Consulting.

Figure 6. Grain vessel rates and spread, U.S. to Japan



Note: Q = quarter; PNW = Pacific Northwest; Spread is the difference between the U.S. Gulf-to-Japan and PNW-to-Japan ocean freight rates.
Source: O'Neil Commodity Consulting.

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Related Websites

- [Grain Transportation Report](#)
- [Mexico Transport Cost Indicator Report](#)
- [Brazil Soybean Transportation Indicator](#)
- [Agricultural Refrigerated Truck Quarterly](#)

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